APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,548	11/24/2003	Jonathan Richard Thorpe	450110-04829	4570

7590	05/02/2006

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EXAMINER
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ART UNIT	PAPER NUMBER
2164	

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/720,548	THORPE, JONATHAN RICHARD
	Examiner	Art Unit	
	Phuong-Thao Cao	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *24 November 2003*.

2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-16* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-16* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *24 November 2003* is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☒ All　b) ☐ Some *　c) ☐ None of:

　　　1. ☒ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *11/24/03, 9/3/04 &. 3/13/06*

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to Application filed on 11/24/2003.

2.   Claims 1-16 are pending.

Priority

3.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers

have been placed of record in the file.

Information Disclosure Statement

4.   Information Disclosure Statements filed by Applicant on 11/24/2003, 09/03/2004 and

03/13/2006 have been received and considered. Copies of reviewed IDS(s) are enclosed with

this action.

Drawings

5.   The drawings are objected to because they fail to show necessary textual labels of

features or symbols in Fig. 1, 5-9 and 19-20 as described in the specification. For example,

placing a label, "Display Device", with element 60 of Fig. 1, would give the viewer necessary

detail to fully understand this element at a glance. A descriptive textual label for each numbered

element in these figures would be needed to better understand these figures without substantial

analysis of the detailed specification. Any structural detail that is of sufficient importance to be

described should be labeled in the drawing. Optionally, the applicant may wish to include a table

next to the present figure to fulfill this requirement. See 37 CFR 1.84(n)(o), recited below:

> "(n) Symbols. Graphical drawing symbols may be used for conventional
> elements when appropriate. The elements for which such symbols and labeled
> representations are used must be adequately identified in the specification. Known
> devices should be illustrated by symbols which have a universally recognized
> conventional meaning and are generally accepted in the art. Other symbols which are not
> universally recognized may be used, subject to approval by the Office, if they are not
> likely to be confused with existing conventional symbols, and if they are readily
> identifiable.
>
> (o) Legends. Suitable descriptive legends may be used, or may be required by
> the Examiner, where necessary for understanding of the drawing, subject to approval by
> the Office. They should contain as few words as possible."

Double Patenting

6.   Claims 1, 2, 7, 8 and 13-16 are provisionally rejected on the ground of nonstatutory

obviousness-type double patenting as being unpatentable over claims 1, 16 and 29-32 of

copending Application No. 10/536,580. Although the conflicting claims are not identical, they

are not patentably distinct from each other because claims 1, 16 and 29-32 of Application No.

10/536,580 contain every element of claims 1, 2, 7, 8 and 13-16 of the instant application and

thus anticipate claims 1, 2, 7, 8 and 13-16 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting

claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal

disclaimer: A terminal disclaimer signed by the assignee must fully comply with 37 CFR

3.73(b).

Claim Objections

7.   Claim 12 is objected to because it depends on itself. It is believed that claim 12 depends

on claim 11 and treated as such in this office action. However, an appropriate correction is

required.

8.   Claims 13-16 objected to under 37 CFR 1.75(c), as being of improper dependent form for

failing to further limit the subject matter of a previous claim. Applicant is required to cancel the

claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the

claim(s) in independent form. Computer software having program code or a medium for

providing program code in claims 13-16 does not perform the method according to claim 7 if it is

not executed on a computer; as a result, it fails the infringement test for a proper dependent

claim. See MPEP § 608.01(n).

Claim Rejections - 35 USC § 112

9.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming
> the subject matter which the applicant regards as his invention.

10.   Claims 4 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the number of dimensions n" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the search processor" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

11.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12.   Claims 13, 14 and 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 13 are rejected as software per se.

Claim 14 recites a medium which does not limit to an tangible medium since the medium

may include transmission medium which is not in or of itself a tangible medium.

Claim 16 recites a transmission medium which is not in or of itself a tangible medium.

Claim Rejections - 35 USC § 102

13.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

14.   Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin et al. ("A

Self-organizing Semantic Map for Information Retrieval". ACM: 1991).

As to claim 1, Lin et al. teach:

"An information retrieval apparatus for searching a set of information items" (see Abstract and

[page 166, column 1, paragraph 6]), the apparatus comprising:

"a mapping processor operable to generate data representative of a map of information

items from a set of information items, the map providing the information items with respect to

positions in an array in accordance with a mutual similarity of the information items, similar

information items mapping to similar positions in the array" (see Abstract, [page 264, column 1,

paragraph 4], [page 264, column 2] and [page 266, column 1, paragraph 6 and 7] wherein "the

semantic map of documents" is equivalent to Applicant's "data representative of a map of

information items", "grid nodes" is equivalent to Applicant's "positions in an array", the

disclosure of training process to generate the semantic map of documents implies the inclusion of

a mapping processor as illustrated in Applicant's claim language, and the construction of a self

organizing sematic map based on Kohonen's feature map implies the ordering and visualizing

data by similarity which can interpret in other words as similar data mapping to similar positions

on the map as illustrated in Applicant's claim language; also see [page 262, column 2, paragraph

5], [page 263, column 1] and Fig. 1);

"a graphical user interface for displaying a representation of at least some of the

information items" (see [page 266, column 1, paragraph 6-7] and Fig. 4a-b wherein semantic

map or list of titles in selection window is equivalent to Applicant's "representation of at least

some of the information items"); and

"a user control for selecting an information item, wherein a search processor is operable

to perform a related search with respect to the user selected information item by identifying

information items which correspond to positions in the array with are neighbouring positions

with respect to the array position corresponding to the user selected information item" (see [page

265, column 2] and [page 266, column 1, paragraph 1 and 5-7] and [page 267, column 1,

paragraph 1-2] wherein searching through word links and item links or searching by drawing a

rectangular region of nodes from the map is equivalent to "a related search" as illustrated in

Applicant's claim language; clicking one node or selecting a title is equivalent to Applicant's

"user control"; and the searching process for retrieving information must be done by a processor

which is equivalent to Applicant's "search processor"; the system as disclosed allows a user to

select a node (equivalent to Applicant's "array position") to view if the user finds the

information of interest, he can go back to the map and search for related information in the

neighbor nodes by selecting a region of choice around the selected node).

As to claim 2, this claim is rejected based on arguments given above for rejected claim 1

and is similarly rejected including the following:

Lin et al. teach:

"wherein the search processor is operable to search the set of information items in

accordance with a search query and to identifying information item corresponding to the search

query, and the mapping processor is operable to generate the map data of information items

identified by the search processor as a result of the search on the search query" (see [page 267,

column 1, paragraph 2] wherein "providing links and sematic maps to retrieved results of a

query" is equivalent to Applicant's claim language).

As to claim 3, this claim is rejected based on arguments given above for rejected claim 1

and is similarly rejected including the following:

Lin et al. teach:

"wherein the graphical user interface is operable to display of at least some of the

position of the array corresponding to identified information as an n-dimensional display array of

display points within a display area" (see [page 266, column 1, paragraph 6] and Fig. 4a wherein

two dimensional map is equivalent to Applicant's "an n-dimensional display array").

As to claim 4, this claim is rejected based on arguments given above for rejected claim 1 and is similarly rejected including the following:

Lin et al. teach:

"wherein the number of dimentions n is two, a position in the array being defined by x,y co-ordinates" (see [page 266, column 1, paragraph 6 and Fig. 4a wherein the disclosure of a two dimensional map indicates that the number of dimentions n is two and a position in the map being defined by x,y co-ordinates as illustrated in Applicant' claim language).

As to claim 5, this claim is rejected based on arguments given above for rejected claim 4 and is similarly rejected including the following:

Lin et al. teach:

"wherein the search processor is operable to perform a related search with respect to the user selected information item by identifying information which correspond to positions in the array which are within a radius of positions from the array position corresponding to the user selected information item" (see [page 266, column 1, paragraph 7] and Fig. 4a-c wherein selecting nodes by drawing a rectangular region of nodes from the map is equivalent to related search as illustrated in Applicant's claim language; the system as disclosed allows a user to select a node (equivalent to Applicant's "selected information item") to view if the user finds the information of interest, he can go back to the map and search for related information in the neighbor nodes by selecting a region of choice around the selected node).

As to claim 6, this claim is rejected based on arguments given above for rejected claim 1

and is similarly rejected including the following:

Lin et al. teach:

"wherein the user control is operable to provide the user with a facility for specifying the

number of neighbouring positions in accordance with a relative similarity of information items to

be search by the search processor in the related search, with respect to the array position of

interest" (see [page 266, column 1, paragraph 7] and Fig. 4a-c wherein the function of selecting

nodes by drawing a rectangular region of nodes from the map is equivalent to Applicant's claim

language; the system as disclosed allows a user to select a node (equivalent to Applicant's "the

array position of interest") to view if the user finds the information of interest, he can go back to

the map and search for related information in the neighbor nodes by selecting by drawing a

region of choice including any specific number of neighboring nodes around the selected node).

As to claim 7, Lin et al. teach:

"A method for searching a set of information items" (see Abstract and [page 267, column 1,

paragraph 2]), the method comprising:

"generating data representative of a map of information items from a set of information

items, the map providing the information items with respect to positions in an array in

accordance with a mutual similarity of the information items, similar information items mapping

to similar positions in the array" (see Abstract, [page 264, column 1, paragraph 4], [page 264,

column 2] and [page 266, column 1, paragraph 6 and 7] wherein "the semantic map of

documents" is equivalent to Applicant's "data representative of a map of information items",

"grid nodes" is equivalent to Applicant's "positions in an array", and the construction of a self

organizing sematic map based on Kohonen's feature map implies the ordering and visualizing

data by similarity which can interpret in other words as similar data mapping to similar positions

on the map as illustrated in Applicant's claim language; also see [page 262, column 2, paragraph

5], [page 263, column 1] and Fig. 1);

"displaying a representation of at least some of the information items" (see [page 266,

column 1, paragraph 6-7] and Fig. 4a-b wherein semantic map or list of titles in selection

window is equivalent to Applicant's "representation of at least some of the information items");

"selecting an information item" (see [page 266, column 1, paragraph 7] wherein a node is

equivalent to Applicant's "an information item"); and

"performing a related search with respect to the user selected information item by

identifying information items which correspond to positions in the array with are neighbouring

positions with respect to the array position corresponding to the user selected information item"

(see [page 265, column 2] and [page 266, column 1, paragraph 1 and 5-7] and [page 267, column

1, paragraph 1-2] wherein searching through word links and item links or searching by drawing a

rectangular region of nodes from the map is equivalent to "a related search" as illustrated in

Applicant's claim language; the system as disclosed allows a user to select a node (equivalent to

Applicant's "array position") to view if the user finds the information of interest, he can go back

to the map and search for related information in the neighbor nodes by selecting a region of

choice around the selected node).

As to claim 8, this claim is rejected based on arguments given above for rejected claim 7 and is similarly rejected including the following:

Lin et al. teach:

"searching the information items in accordance with a search query" (see [page 267, column 1, paragraph 2]),

"identifying information items corresponding to the search query" (see [page 267, column 1, paragraph 2] wherein "retrieved results of a query" is equivalent to Applicant's claim language); and

"generating the map data of information items identified by the search processor as a result of the search on the search query" (see [page 267, column 1, paragraph 2] wherein the disclosure of providing semantic maps to retrieved results of a query wherein semantic map equivalent to Applicant's "the map data of information items" indicates that the map must be generated before providing as disclosed).

As to claim 9, this claim is rejected based on arguments given above for rejected claim 8 and is similarly rejected including the following:

Lin et al. teach:

"displaying a representation of at least some of the positions of the array corresponding to identified information as an n-dimensional display array of display points within a display area" (see [page 266, column 1, paragraph 6] and Fig. 4a wherein two dimensional map is equivalent to Applicant's "an n-dimensional display array").

As to claim 10, this claim is rejected based on arguments given above for rejected claim 9 and is similarly rejected including the following:

Lin et al. teach:

"wherein the number of dimentions n is two, a position in the array being defined by x,y co-ordinates" (see [page 266, column 1, paragraph 6 and Fig. 4a wherein the disclosure of a two dimensional map indicates that the number of dimentions n is two and a position in the map being defined by x,y co-ordinates as illustrated in Applicant' claim language).

As to claim 11, this claim is rejected based on arguments given above for rejected claim 10 and is similarly rejected including the following:

Lin et al. teach:

"wherein the performing the related search comprises performing a related search with respect to the user selected information item by identifying information which correspond to positions in the array which are within a radius of positions from the array position corresponding to the user selected information item" (see [page 266, column 1, paragraph 7] and Fig. 4a-c wherein selecting nodes by drawing a rectangular region of nodes from the map is equivalent to related search as illustrated in Applicant's claim language; the system as disclosed allows a user to select a node (equivalent to Applicant's "selected information item") to view if the user finds the information of interest, he can go back to the map and search for related information in the neighbor nodes by selecting a region of choice around the selected node).

As to claim 12, this claim is rejected based on arguments given above for rejected claim

11 and is similarly rejected including the following:

Lin et al. teach:

"wherein the user control is operable to provide the user with a facility for

specifying the radius of positions in accordance with a relative similarity of information items to

be search by the search processor in the related search, with respect to the array position of

interest" (see [page 266, column 1, paragraph 7] and Fig. 4a-c wherein the function of selecting

nodes by drawing a rectangular region of nodes from the map is equivalent to Applicant's claim

language; the system as disclosed allows a user to select a node (equivalent to Applicant's "the

array position of interest") to view if the user finds the information of interest, he can go back to

the map and search for related information in the neighbor nodes by selecting by drawing a

region of choice including any specific number of neighboring nodes -- equivalent to Applicant's

"the radius of positions -- around the selected node).

As to claims 13-16, these claims are rejected based on arguments given above for

rejected claim 7.

15.   The prior art made of record and not relied upon is considered pertinent to Applicant's

disclosure.

Lee et al. ("A Multilingual Text-Mining Approach based on Self-Organizing map for

Semantic Web Mining". 2002 IEEE SMC) disclose a method for automatically grouping

semantically related terms and documents in multiple languages and a representation of their

cross-lingual semantic relations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong-Thao Cao whose telephone number is (571) 272-2735. The examiner can normally be reached on 8:30 AM - 5:00 PM (Mon - Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PTC

April 28, 2006

Primary Examiner
Art Unit 2167